

MARICOPA COUNTY



2020

Eye To The Future

Maricopa County, Arizona
August, 2001

OPEN SPACE



ACKNOWLEDGEMENTS

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Introduction

This report is organized within the following eight sections: 1) Introduction, 2) Open Space Issues, 3), Open Space Inventory, 4) Need Assessment, 5) Open Space Protection Techniques, 6) Goals, Objectives, and Policies, 7) Action Plan, and 8) References.

State Law and Purpose of Element

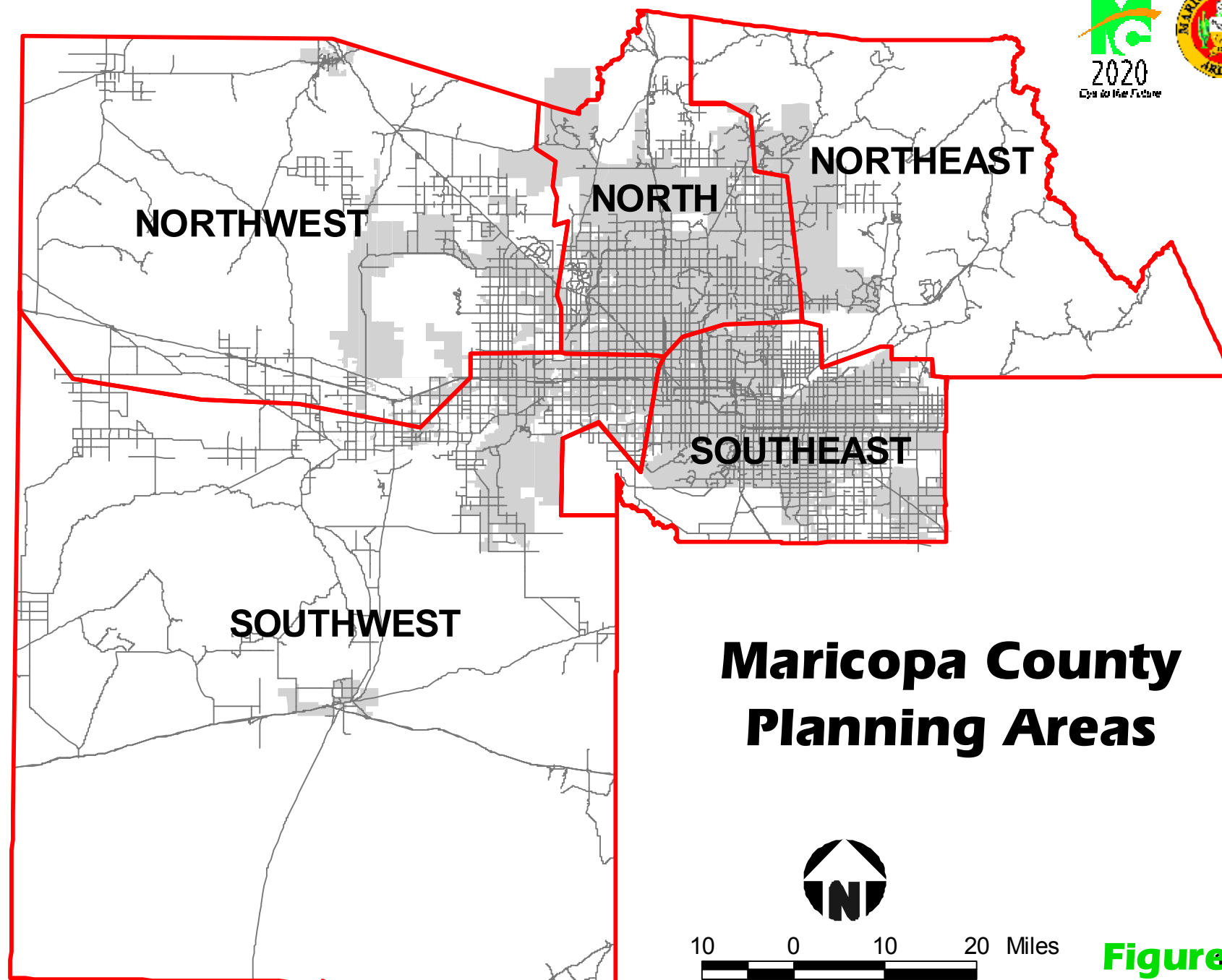
On October 20, 1997 the Maricopa County Board of Supervisors adopted *Eye to the Future 2020*, the Maricopa County Comprehensive Plan. The comprehensive plan currently includes four elements: land use, transportation, environment, and economic development. The plan also includes an action plan which identifies specific implementation techniques.

With passage of the Growing Smarter Act (A.R.S. 11-821D), Maricopa County must now include several new elements, including an examination of open space acquisition and preservation. Specifically, Maricopa County must prepare a comprehensive inventory of open space areas, recreational resources, and designations of access points to open space areas and resources; an analysis of forecasted needs, policies for managing and protecting open space areas and resources; identify potential strategies to acquire additional open space areas and further establish recreational resources; and create policies and implementation strategies designed to promote a regional system of integrated open space and recreational resources while considering any existing regional open space plan.

The purpose of this element is to address the Growing Smarter Act as it relates to regional open space planning. Regional open space has been broadly defined to include existing parks and preserves, mountains, rivers and Significant washes, upland Sonoran Desert vegetation, sensitive and unique wildlife areas, historic and archaeological sites, canals and trails, and agriculture. To ensure consistency with the existing comprehensive plan, open space will be analyzed within regions of Maricopa County. Five regions / planning areas were defined as follows: northwest, southwest, north, northeast, and southeast (**Figure 1**). However, planning jurisdiction is limited to the unincorporated areas of Maricopa County.

Background Plans

There has been a significant amount of research conducted on the topic of open space in Maricopa County. The open space element will use this research and build on the work of various local and regional plans. In addition, there are several historical regional open space plans that are important to acknowledge. A brief description of these plans follows.



Maricopa County Planning Areas

Figure 1

Desert Spaces Plan

The Maricopa Association of Government's Regional Council adopted the *Desert Spaces* plan on October 25, 1995. *Desert Spaces* includes a comprehensive inventory of open space in Maricopa County whereby the following classifications are used: neighborhood parks, community parks, trails and special use parks. Special use parks include golf courses, botanical gardens, zoos, outdoor museums, equestrian parks, outdoor amphitheaters, prehistoric and historic sites, plazas, civic malls, and town squares. Larger scale classifications include regional parks and open space (cities and county), conservancy areas (state and federal lands), and other federal lands managed for multiple use purposes. *Desert Spaces* also prioritizes and recommends policies for "Conservation" and "Retention" areas. Conservation resources are the most fragile and important with characteristics such as steep mountains or riparian and wildlife habitats and may contain valuable cultural resources. Management policies for conservation areas prohibit all types of development. Retention resources are usually upland Sonoran Desert and hillsides. Only environmentally sensitive development is recommended for retention areas. The *Desert Spaces* plan is important to Maricopa County's open space element and will be used extensively as a reference.

Area Drainage Master Plans and Watercourse Master Plans, Maricopa County

The Flood Control District of Maricopa County (District) initiated a proactive program of regional flood control studies in 1983 called Area Drainage Master Studies (ADMS). These studies identify existing flood-prone areas and project future conditions. A goal of the District is to complete Area Drainage Master Plans (ADMPs) for the entire developable portion of the county by 2010. Forty-eight ADMP areas have been established. Those areas with known existing flooding areas and with expected development are given priority. The ADMPs will develop plans to mitigate flood hazards in the study area. In addition, Water Course Master Plans (WCMPs) are similar to ADMPs, except that a WCMP has more of a focus on the management of a particular river, stream or wash and its banks and flood zones, while an ADMP focuses on flooding issues over a wider drainage area. WCMPs will develop and identify alternative plans for providing flood control and will compare traditional flood control facilities to non-structural alternatives. The District has made a commitment that new flood control projects not only protect people and property, but also provide opportunities for multiple uses. These opportunities could include increased protection for natural habitat, new recreational facilities and open space, and aesthetically pleasing designs that contribute to the revitalization of urban areas. The District recognizes that linear attributes provided by canals, rivers and washes may be integrated into the natural and urban environment. The District maintains a map that displays the status of master plans and studies.



A Park, Recreation, and Open Space Study, Maricopa County

In 1970, the Maricopa County Planning and Zoning Department prepared the *Park, Recreation, and Open Space Study* that is a comprehensive analysis of recreation and open space resources in Maricopa County. In this plan, open space includes any land used for park and recreational purposes; for conservation of land or other natural, scenic, or historical purposes. The study concluded that by 1990 there would be a deficit of 11,745 acres of neighborhood, community, and large parks, but that the 1970 total of 110,417 acres of regional parks would provide an excess of 60,000 acres of regional parks needed by 1990, assuming a projected population of 2,000,000 people.

Regional Park System Plan, Maricopa County

On September 19, 1966 the Maricopa County Board of Supervisors adopted the *Maricopa County Regional Park System Plan*. This plan was a guide for Maricopa County Regional Park system planning and development based on an analysis of county residents' needs and desires.

Hiking and Riding Trails, Maricopa County

On June 29, 1964 the Maricopa County Board of Supervisors adopted the *Hiking and Riding Trails Comprehensive Plan* for Maricopa County. This plan included a needs assessment for hiking and riding trails in Maricopa County based on population comparisons, California standards, and Outdoor Recreation Resources Review Commission studies. An analysis of existing trails and the number of miles of trails required for future use resulted in the establishment of the Sun Circle Trail (**Figure 2**). The Sun Circle Trail is a countywide trail system designed to provide connections between all urban areas and county regional parks. Full implementation of the Sun Circle Trail has not occurred and should be pursued with the Maricopa County Regional Trail Plan.

Maricopa County Regional Trail Plan

On February 21, 2000, the Board of Supervisors announced the formation of the Maricopa County Trail Commission and their intention to create a regional trail system. The goal of this plan will be to connect the county park system, link recreational corridors around the metropolitan area, and help preserve open space. The project will build on existing rights-of-way such as canals, parks, utility corridors, and Flood Control District of Maricopa County projects. Some of the projects identified for incorporation in the regional trail system include:

- Maricopa County Regional Park System
- Sun Circle Trail (adopted by Maricopa County June, 1964)



- Desert Spaces Plan (adopted by Maricopa Association of Governments October, 1995)
- Rio Salado
- West Valley Recreation Corridor (along the Agua Fria and New rivers)
- Superstition-San Tan Corridor
- Tres Rios Master Plan
- El Rio Master Plan (along a portion of the Gila River)
- McDowell Sonoran Preserve – Conceptual Preserve Trail System

The trail will be created by linking open space projects and trail systems into a large loop around Maricopa County. Some of the trails already exist, some are in the planning stages, and some will have to be created. These trails cross through many jurisdictions, communities, and properties, so partnerships and agreements are important to creating the regional trail. Maricopa County will serve as the facilitator to bring all the different links together.

When complete, the comprehensive system will incorporate several types of trails to accommodate many kinds of recreational opportunities. Such opportunities will likely include biking, walking, jogging, and horseback riding. To accommodate these various uses, trail surfaces (i.e. paved, unpaved, landscaped, etc.) will likely vary throughout the system.

Managing this significant project process is the Maricopa County Trail Commission. The Maricopa County Trail Commission is comprised of two members of the Board of Supervisors, two members of the Maricopa County Parks Commission, five citizens and stakeholders appointed by the Board of Supervisors. This commission will serve in an advisory capacity to the Board of Supervisors and will work to implement plans for the regional trail system.

When formally adopted by the Board of Supervisors, the Maricopa County Regional Trail System will be incorporated into *Eye to the Future 2020*, which will help ensure that the trail will be implemented as Maricopa County grows. As such, future development will be the catalyst for the regional trail system.

For more information on the proposed Maricopa County Regional Trail, contact Maricopa County Parks and Recreation Department or visit the Maricopa County Trail Commission website at www.maricopa.gov/trail.

Open Space Issues

Research of previous Maricopa County open space documents, as well as input from numerous stakeholders, have identified the following countywide open space issues:



- Agriculture is important to our national heritage and culture.
- Physical and visual access to public open spaces is lacking.
- Regional connectivity and linkages are important for both recreation and wildlife.
- Education is important for recognition of the economic and quality of life benefits of open space.
- Environmentally sensitive areas, including mountains and slopes; rivers and significant washes; historic, cultural, and archeological resources; view corridors; Sonoran Desert; and wildlife habitat and ecosystems need to be protected.
- Buffers between communities and land uses are lacking.
- There is a degradation of quantity, quality, and diversity of recreational opportunities.
- Implementation of existing plans is important (i.e., *Desert Spaces* plan and Sun Circle Trail).

Open Space Inventory

The Maricopa County Comprehensive Plan divides open space into two main categories: dedicated open space and proposed open space. Proposed open space will be discussed in later sections.

Dedicated Open Space

Dedicated open spaces are open space areas under public ownership, except for excluding State Trust Land, that have unique environmental and physical qualities. In Maricopa County, dedicated open space exists as regional parks, wilderness areas, wildlife areas, and the Tonto National Forest (**Figure 2**). There are approximately 2,000 square miles of dedicated open space in Maricopa County which provide recreation and aesthetic opportunities. Existing open space, which includes open space outside but adjacent to Maricopa County and within county developments, totals about 6,000 square miles.

For this inventory, open space is separated into seven categories which are derived from the National Recreation and Park Association (NRPA): **Neighborhood Parks, Community Parks, Regional Parks and Recreation Areas, Special Use Parks, Conservancy Areas, Linear Parks (Trails), and Other Types of regional open space.** The category called "Other Types" of open space is also included based upon public input. However, open space in this "Other" category is not necessarily dedicated or publicly accessible, such as golf courses and designated open space within developments. In addition, some categories of open space are not under county jurisdiction. For purposes of this report, all open space has been deemed regionally significant.

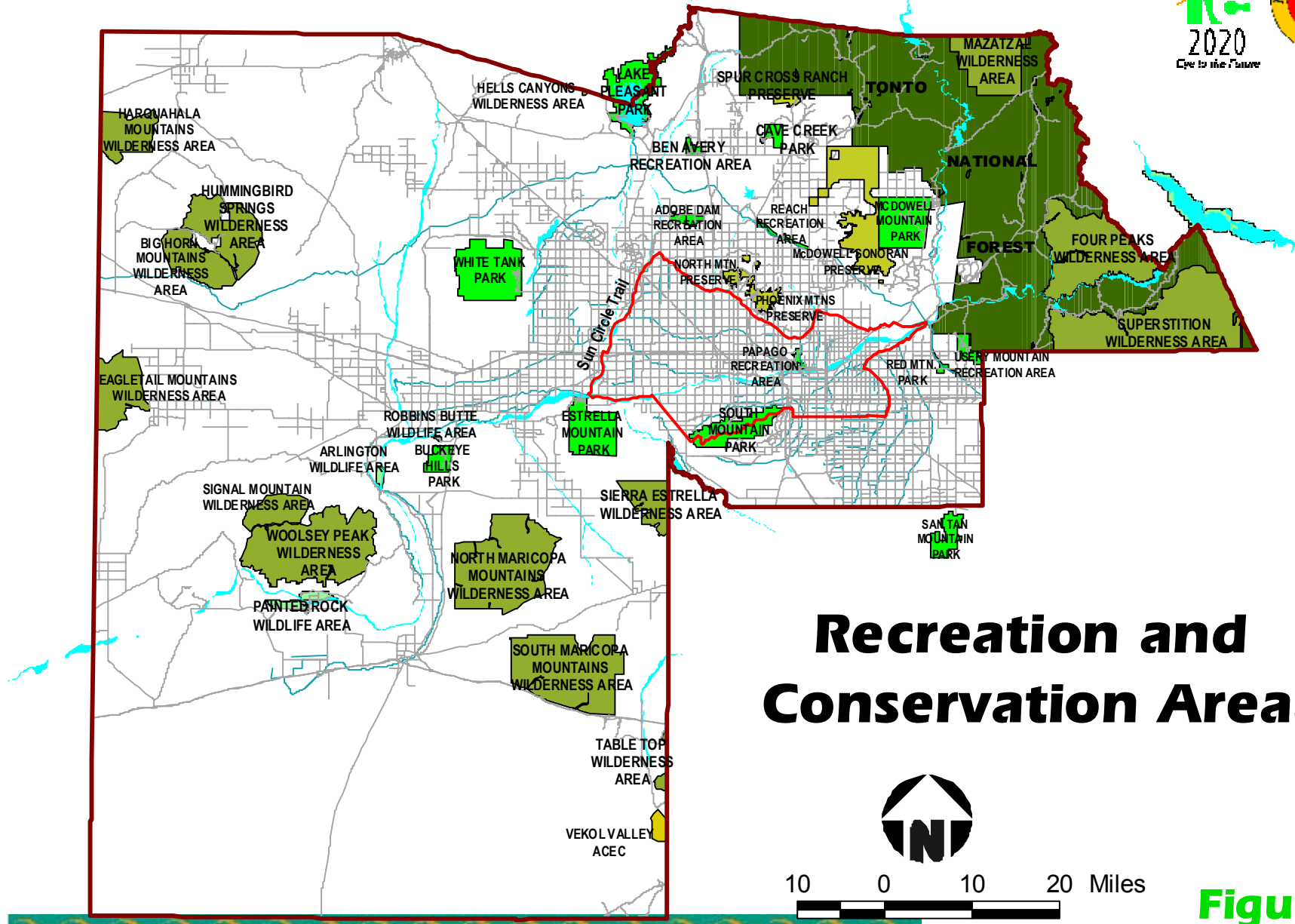


Figure 2



Neighborhood Parks

Neighborhood park is defined by the NRPA as an area of 15 or more acres which is suitable for intense recreational activities. No dedicated neighborhood parks are located in unincorporated Maricopa County. As such, residents of unincorporated Maricopa County seeking a public neighborhood park must travel to nearby incorporated communities.

Community Parks

Community park is defined by the NRPA as an area 25 acres or larger that has a diverse environmental quality and may include areas suitable for intense recreational activities. The Environmental element of the Maricopa County Comprehensive Plan identified one community park within unincorporated Maricopa County. The Hopeville Community Park, located in southwestern Maricopa County, includes baseball/softball fields, basketball courts, and picnic facilities.

Regional Parks and Recreational Areas

The NRPA defines a regional park as an area 1,000 acres or larger that is suitable for nature-oriented recreation. With ten regional parks totaling more than 116,000 acres, Maricopa County Parks and Recreation Department manages the largest county park system in the nation. In 1952, the county park system included eight underdeveloped neighborhood-type park sites. In the 1960s, under a federal act, Maricopa County began an aggressive drive to lease and purchase regional parks sites. Currently, over two million people visit these parks annually to enjoy a variety of activities.

The following is a brief summary of regionally significant park and recreation areas in the metropolitan area (**Table 1**). Some preserve areas are categorized as parks and recreation areas due to their primary function.

White Tank Mountain Regional Park

Located in the northwest region of Maricopa County, 26,337-acre White Tank Mountain Regional Park is the largest park in the county system. This park offers 40 family and group campsites, as well as 240 picnic sites with various facilities. In addition, there are over 20 miles of hiking, mountain biking, and horseback riding trails that wind through the White Tank Mountains.

Estrella Mountain Regional Park

The 19,840-acre Estrella Mountain Park, located in the southwest region of Maricopa County, offers many amenities such as playground equipment, two lighted ball fields, 65 acres of grass with 10 covered ramadas, picnic tables, grills, restrooms, an 18-hole golf course, and a rodeo arena. In addition, the park has seven recreational vehicle



Table 1
Regional Parks and Recreation Areas

Area	Acres	Region	Management
White Tank Mountain Regional Park	26,337	Northwest	Maricopa County
Lake Pleasant Regional Park	23,662	North	Maricopa County
McDowell Mountain Regional Park	21,416	Northeast	Maricopa County
Estrella Mountain Regional Park	19,840	Southwest	Maricopa County
San Tan Mountains Regional Park	10,118	Southeast	Maricopa County
Buckeye Hills Park	4,474	Southwest	Maricopa County
Cave Creek Recreation Area	3,722	North	Maricopa County
Usery Mountain Recreation Area	3,648	Southeast	Maricopa County
South Mountain Park	16,500	Southeast	City of Phoenix
Phoenix Mountain Preserve	5,436	North	City of Phoenix
Cave Buttes Recreation Area	2,200	North	City of Phoenix
Reach 11 Recreation Area	1,673	North	City of Phoenix
North Mountain Preserve	1,672	North	City of Phoenix
Papago Park	1,200	Southeast	City of Phoenix
Red Mountain Park	1,146	Southeast	City of Mesa
Arizona Game & Fish Shooting	1,650	North	AZ Game & Fish Dept.
Adobe Dam Recreation Area	1,526	North	Various private entities
TOTAL	146,220		



campsites and over 33 miles of trails for hiking, mountain biking, and horseback riding. The park also offers a competitive track used primarily for mountain bicyclists.

Lake Pleasant Regional Park

The 23,662-acre Lake Pleasant Regional Park is located in the northwest region of Maricopa County, but also extends into Yavapai County. With 10,000 surface acres of water, Lake Pleasant offers many recreation opportunities. In addition, Lake Pleasant Park provides 148 recreational vehicle/tent campsites, 27 picnic sites, two group ramada areas, and the Desert Outdoor Center, a hands-on environmental education center.

Adobe Dam Recreation Area

The 1,526-acre Adobe Dam Recreation Area is located in the north region of Maricopa County, and is completely surrounded by the incorporated municipalities of Glendale and Phoenix. Park amenities include vendor-operated cart racing, model steam railroad, ultralight flying, model airplanes, family water park, an 18-hole golf course, and several ballfields.

McDowell Mountain Regional Park

The 21,099-acre McDowell Mountain Regional Park is located in the northeast region of Maricopa County. The park offers over 70 family and group campsites equipped with electricity and water hook-ups and nearby shower/restroom facilities. There are also 88 picnic sites and over 30 miles of trails for hiking, mountain biking, and horseback riding. The park also offers a competitive track geared for mountain bikers but also open to joggers and equestrian riders. A 317-acre expansion of the park is currently being considered under the Arizona Preserve Initiative (described on page 31).

San Tan Mountain Regional Park

The San Tan Mountain Regional Park, encompassing 10,118 acres, is located just outside the southeast region of Maricopa County in Pinal County. The park is essentially undeveloped but offers opportunities for hiking and riding.

Usery Mountain Recreation Area

The 3,648-acre Usery Mountain Recreation Area, located in the southeast planning area of Maricopa County, has 73 family and two group campsites. Additional facilities include a group picnic area and several small picnic sites with grills, tables, ramadas, and water. Usery Park also offers 27 miles of trails for hiking, mountain biking, and horseback riding.

Cave Creek Recreation Area

Cave Creek Recreation Area is located in the northeast part of Maricopa County and encompasses 2,922 acres. Cave Creek Recreation Area offers approximately 11 miles of internal trails for hiking, mountain biking, and horseback riding. The facility also has over 100 family and group campsites which include electricity and restrooms with showers. In addition, there are 51 developed picnic sites with water and restrooms.

**Buckeye Hills Park**

The 4,474-acre Buckeye Hills Park is located in the southwest region of Maricopa County and offers picnic facilities and a small shooting range. Mountain elevations range from 850 to 1,859 feet.

Red Mountain Park (City of Mesa)

Red Mountain Park, encompassing 1,146 acres, is a City of Mesa district park located in the southeast region of Maricopa County. Park facilities include volleyball courts, playgrounds, basketball courts, soccer fields, ramada, and a lake.

Spur Cross Ranch Conservation Area

The Town of Cave Creek, Maricopa County, and the State of Arizona recently acquired Spur Cross Ranch. Spur Cross Ranch is a 2,124-acre conservation area located in the northeast region of Maricopa County. Maricopa County Parks and Recreation Department has been designated the managing agency. The Parks and Recreation Department has recently begun the process of selecting a consultant to solicit public input and develop a master plan to determine the use and access into the conservation area.

Other Prominent Recreational Areas

The City of Phoenix has several parks and recreation areas, including South Mountain Park/Preserve, Papago Park, Phoenix Mountain Preserves, Arizona Game and Fish Shooting Facility (formerly named Ben Avery Shooting Facility), Reach 11 Recreation Area, and Cave Buttes Recreation Area.

At 16,500 acres, South Mountain Park is the world's largest city park and offers almost 60 miles of trails, picnic sites, and a 16,670 square foot educational center. Twelve hundred-acre Papago Park offers picnic sites, fishing lagoons, archery range, a softball field, and an 18-hole golf course. The Phoenix Mountain Preserve, which includes both North Mountain and Squaw Peak, encompasses approximately 7,000 acres and includes hiking, horseback, and picnic opportunities. The 1,650-acre Ben Avery Shooting Facility is the largest public operated shooting facility in the country. Reach 11 Recreation Area contains 1,673 acres of semi-natural trails within the north region of Maricopa County. Twenty-two hundred-acre Cave Buttes Recreation Area includes a reservoir and is located in the north region of Maricopa County.

Special Use Parks

According to the NRPA, special use parks may include plazas, civic malls, town squares, historical sites, small parks, botanical gardens, zoos, fairgrounds, outdoor museums, or outdoor amphitheaters. Several areas that could be considered special use areas were identified within the previously mentioned regional parks. The Adobe Dam Recreation Area and the Estrella Mountain Regional Park are examples of regional parks with special use areas.



Conservancy Areas

The NRPA defines conservancy areas to mean the protection and management of natural or cultural environments with recreational use as a secondary objective. The conservancy areas within Maricopa County include municipal preserves and open spaces, wildlife areas administered by the Arizona Game and Fish Department (AGFD), a greenbelt administered by Bureau of Land Management (BLM), congressionally designated wilderness areas administered by the BLM and USDA Forest Service (USFS), and other lands managed for conservation purposes by the BLM or the USFS (**Table 2**).

There are 13 designated wilderness areas in and adjacent to Maricopa County totaling approximately 900,000 acres. The Wilderness Act of 1964 defines a wilderness as an area “which is protected and managed so as to preserve its natural conditions and which 1) generally appears to have been affected primarily by the forces of nature, with the imprint of man’s work substantially unnoticeable; 2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; 3) has at least five thousand acres of land or is of sufficient size to make practicable its preservation and use in an unimpaired condition; and 4) may also contain ecological, geological, or other features of scientific, educational, scenic or historical value” (Public Law 88-577, 78 Stat. 890 as amended; 16 U.S.C. 1131 (note)). The following is a brief description of each wilderness area.

Sierra Estrella (BLM)

Sierra Estrella Wilderness Area is 14,400 acres and is located in the southwest region of Maricopa County. Designated in 1990, the area is bordered by the Gila Indian Reservation and is one of the rockiest areas in the state.

North/South Maricopa Mountains (BLM)

North Maricopa Mountains Wilderness Area is 63,200 acres and the South Maricopa Mountains Wilderness Area is 60,100 acres. These wilderness areas are located in the southwest region of Maricopa County, both were designated in 1990, and both areas support abundant native vegetation and wildlife.

Woolsey Peak (BLM)

Woolsey Peak Wilderness Area is 64,000 acres and is located in the southwest region of Maricopa County. Designated in 1990, Woolsey Peak is approximately 3,300 feet above sea level and is a geographic landmark visible from much of southwestern Arizona.

Signal Mountain (BLM)

Signal Mountain Wilderness Area is 13,350 acres and is located in the southwest region of Maricopa County. Also designated in 1990, this area has steep volcanic peaks, canyons, and ridgelines and is separated from the Woolsey Peak Wilderness area by a dirt road.



Table 2
Conservancy Areas

Area	Acreage	Region	Management
Painted Rock Wildlife Area	5,056	Southwest	AGFD
Robbins Butte Wildlife Area	1,636	Southwest	AGFD
Powers Butte Wildlife Area	1,200	Southwest	AGFD
Arlington Wildlife Area	938	Southwest	AGFD
B & M Wildlife Area	203	Southwest	AGFD
Sonoran Desert National Monument	496,000	Southwest	BLM
Eagletail Mountains Wilderness Area	97,880**	Southwest	BLM
Woolsey Peak Wilderness Area	64,000	Southwest	BLM
North Maricopa Mountains Wilderness Area	63,200	Southwest	BLM
South Maricopa Mountains Wilderness Area	60,100	Southwest	BLM
Fred J. Weiler Greenbelt (includes 6900 acres PLO 10-15 lands managed by AGFD)	62,735	Southwest	BLM/AGFD
Table Top Wilderness Area	34,400**	Southwest	BLM
Hummingbird Springs Wilderness Area	31,200	Northwest	BLM
Harquahala Mountain Wilderness Area	22,880**	Northwest	BLM
Big Horn Mountains Wilderness Area	21,000	Northwest	BLM
Sierra Estrella Wilderness Area	14,400	Southwest	BLM
Signal Mountain Wilderness Area	13,350	Southwest	BLM
Hell's Canyon Wilderness Area	9,311**	Northwest	BLM
Vekol Valley ACEC	3,520	Southwest	BLM
Phoenix Sonoran Preserve*	22,500	North/Southeast	City of Phoenix
McDowell Sonoran Preserve*	36,400.	Northeast	City of Scottsdale/Town of Fountain Hills
Spur Cross Conservation Area	2,124	Northeast	Town of Cave Creek/ Maricopa Co./State of AZ
Tonto National Forest (includes Mazatzal, Four Peaks, and Superstition Wilderness Areas)	657,700	Northeast	USFS
TOTAL	1,721,733**		

*Not all land secured

**Total acreage includes areas which extend outside Maricopa County

**Harquahala Mountain (BLM)**

Designated in 1990, Harquahala Mountain Wilderness Area is located in the northwest region of Maricopa County. This wilderness area is 22,880 acres and is distinguished by Harquahala Peak, which reaches a summit of 5,691 feet. This area also supports rare vegetation and endangered wildlife.

Eagle Tail Mountains (BLM)

Eagle Tail Mountains Wilderness Area is 97,880 acres and is located in the southwest region of Maricopa County. The Eagle Tail Mountains, designated as a wilderness area in 1990, include a 3,300 foot peak and are known for their unique geologic formations.

Big Horn Mountains (BLM)

The 21,000-acre Big Horn Mountains Wilderness Area is located in the northwest region of Maricopa County. Also designated in 1990, the Big Horn Mountains Wilderness does not have maintained trails, although hikers and backpackers do use the winding dirt roads and primitive campsites.

Hell's Canyon (BLM)

Hell's Canyon Wilderness Area is 9,311 acres and is located in the northwest region of Maricopa County. Designated in 1990, Hell's Canyon Wilderness Area has primarily Sonoran Desert vegetation with peaks averaging 3,300 feet. This area is suitable for all levels of hikers, climbers, and campers.

Hummingbird Springs (BLM)

Designated in 1990, Hummingbird Springs Wilderness Area is 31,200 acres and is located in the northwest region of Maricopa County. The area is distinguished by Sugarloaf Mountain, which has a peak of 3,418 feet.

Table Top (BLM)

Table Top Wilderness is approximately 34,400 acres and is located in the southwest region of Maricopa County. Although significant, much of this wilderness area is located in Pinal County. Designated in 1990, the area's distinctive feature is Table Top Mountain which has a 4,373 foot summit and 40 foot mesa that is visible from the Phoenix area.

Mazatzal (USFS)

The Mazatzal Wilderness was established by the Forest Service in 1938 and designated to the National Wilderness Preservation System in 1964. It was expanded in 1984. It is the largest wilderness on National Forest System lands in Arizona. Approximately 30,700 acres are within Maricopa County.

Four Peaks (USFS)

This wilderness was designated in 1984 and about 90% of its 61,074 acres are within Maricopa County. It is dominated by Four Peaks, which at over 7,600 feet, is the highest elevation in the county. Four Peaks is distinctively visible from the metropolitan Phoenix area.

**Superstition (USFS)**

This wilderness was established as a primitive area by the Forest Service in 1938 and reclassified as a wilderness area in 1940. It was designated to the National Wilderness Preservation System in 1964 and expanded in 1984. About 50%, 81,000 acres, of the wilderness area is within Maricopa County. The western end of the wilderness area, Superstition Mountain, is readily accessible to the urban area and is popular with hikers, backpackers and horseback riders.

Other Conservancy Areas

Tonto National Forest encompasses approximately three million acres, of which nearly 25% are within the northeast region of Maricopa County. Although the forest extends far beyond the Maricopa County border, approximately 657,700 acres, including the three wilderness areas are within Maricopa County. Most of the Forest, excluding designated wilderness areas, is managed for watershed protection and multiple uses including timber, range, water, wildlife and recreation. Segments of the Salt and Verde rivers and all or portions of five major reservoirs are within Maricopa County and provide water-related recreational opportunities including boating, water and jet skiing, rafting, tubing, swimming and fishing. Other available activities include hiking, backpacking, picnicking, mountain biking, canoeing, rafting, tubing, hunting, target shooting, jeep tours, horseback riding, camping, swimming, fishing, and boating.

The Fred J. Weiler Greenbelt, managed by the BLM, consists of approximately 63,000 acres in the southwest region of Maricopa County. The greenbelt extends along the Gila River from the Sierra Estrella Regional Park to twelve miles west of Dateland, Arizona. In 1970, the United States Fish and Wildlife Service (USFWS) determined that the greenbelt would be retained under the Classification for Multiple Use Act of 1964. The classification was established to enable management of wildlife habitat, flood and erosion control, and recreation opportunities.

In January 2001, a vast swath of pristine Arizona desert south of metropolitan Phoenix was declared a new federal monument. The Sonoran Desert National Monument is a 486,000-acre L-shaped area east of Gila Bend and southeast of Town of Buckeye. The monument, managed by the BLM, includes three designated wilderness areas (North and South Maricopa and Table Top Mountain), encompasses the Sand Tank Mountains as well as Vekol Valley, and will contain a portion of the Barry M. Goldwater Air Force Range. The preservation effort will protect grasslands, cultural resources, archaeological sites, Sonoran Desert, and wildlife habitat.

The Barry M. Goldwater Air Force Range will provide approximately 720,000 acres (land no longer needed for military training) within Maricopa County that will be available for recreational access. Permits may be obtained for activities within the Range such as hunting, off-highway vehicle use, and camping.



The Vekol Valley Area of Critical Environmental Concern (ACEC), now part of the Sonoran Desert National Monument, is located in the southwest region of Maricopa County and is managed by the BLM. An ACEC is defined by the federal government as “an area of public lands where special management attention is required to protect important historic, cultural, or scenic values, fish and wildlife or natural systems or processes or to protect life and safety from natural hazards” (USDI-*Lower Gila South Management Plan*, 2000). The 3,520-acre Vekol Valley ACEC is within the BLM’S Lower Gila Resource Area and is classified as a grassland.

There are a number of wildlife areas in the southwest region that are managed by the Arizona Game and Fish Department. These include Painted Rock Wildlife Area (5,056 acres), Powers Butte Wildlife Area (1,200 acres), Arlington Wildlife Area (938 acres), Robbins Butte Wildlife Area (1,636 acres), and B&M Wildlife Area (203 acres). In addition, the AGFD manages approximately 6,900 acres of federal land (known as PLO 10-15 lands) along the Gila River bottom from 91st Avenue to Gillespie Dam, located within the Fred J. Weiler Greenbelt. The mission of the AGFD is to conserve, enhance and restore Arizona’s diverse wildlife resources and habitats through aggressive protection and management programs, and to provide wildlife resources and safe watercraft and off-highway vehicle recreation for the enjoyment, appreciation, and use by present and future generations. Lands owned or managed by the AGFD are usually accessible to the public.

There are also two relatively new municipal Sonoran Desert preserves identified within Maricopa County. These include the 23,000-acre City of Phoenix Sonoran Preserve in the north and southeast regions of Maricopa County, and the 36,400-acre City of Scottsdale McDowell Sonoran Preserve in the north region. These preserves are planned to accomplish several goals including regional connectivity with other public open space, biological habitat preservation, sustainability of wildlife corridors, watershed protection, and expansion of municipal recreation lands.

Linear Parks (Trails)

The NRPA defines a linear park (which can include trails) as an area developed for one or more varying modes of recreational travel, such as hiking, biking, snowmobiling, horseback riding, cross-country skiing, canoeing, and pleasure driving. The Maricopa County Parks and Recreation Department maintains over 150 miles of trails within the existing regional parks. The Tonto National Forest, BLM Wilderness areas, and other public lands also have extensive trail systems. However, Maricopa County does not have a comprehensive trail system that connects regional parks and conservancy areas.

Sun Circle Trail

The Sun Circle Trail (Figure 2) is a trail (adopted by the Maricopa County Board of Supervisors in 1964) that encircles the metropolitan area of Maricopa County and provides connections with specific regional parks. Although the Sun Circle Trail is not



fully implemented, Maricopa County has a license to manage select portions of Salt River Project canals, which would be important links in the trail connection.

Maricopa County Regional Trail Plan

As noted earlier, Maricopa County is currently working to expand the Sun Circle and other systems through a regional trails master plan. The regional trails plan will be a comprehensive system linking the Maricopa County Park system and recreational corridors around the metropolitan area, as well as helping preserve open space. The project will help connect existing rights-of-ways such as canals, parks, utility corridors, and flood control projects. The system will provide various recreation opportunities such as hiking, biking, and horseback riding. Intergovernmental agreements and partnerships for acquisition, access, and maintenance will be necessary to help ensure a seamless regional system that serves county residents.

Other Trail Systems

Established trail systems, such as the north-south Black Canyon Trail on the west side of Interstate-17 in New River, can connect to the system. Proposed and existing conservation trails delineated in county area plans and municipal general plans will also play a significant role in providing connectivity. For example, using existing trails and rights-of-way, an east-west connection from Lake Pleasant to the Black Canyon trail, then to Daisy Mountain, and finally to trails in the Tonto National Forest and Cave Creek Park may be achieved.

Scenic/Recreational Overlays

Maricopa County roadway overlays acknowledge the special importance of roads for purposes other than mobility. The scenic/recreational overlay recognizes the need to minimize impacts to, or preserve, characteristics of a road's environment, or it recognizes a road's importance as access to recreational facilities. Characteristics such as design speeds, right-of-way, cuts and fills, existing vegetation and viewsheds will be carefully analyzed for these roadways. For information on future corridor studies that may include scenic/recreation overlays refer to Maricopa County's *Transportation System Plan*.

State Route 74 and the Wickenburg Highway (US Highway 60-89) are both encoded in the *Zoning Ordinance for the Unincorporated Area of Maricopa County* as scenic corridor overlay zoning districts. In addition, two of the county's area plans contain scenic corridor designations. The *New River Area Plan* designates the I-17 Corridor from Carefree Highway to the Yavapai County line as a scenic corridor overlay. The *Carefree Highway Scenic Corridor Study*, in a separate plan, identifies the Carefree Highway as a scenic corridor overlay.



Other Regional Open Space

Several other types of open spaces in Maricopa County may be considered important, but are not necessarily dedicated or publicly accessible. Such open space includes golf courses, agriculture, and designated open space in Development Master Plans (DMPs) and new power plant projects. While most of the land in this category is not accessible to the public, it is nonetheless important for visual and aesthetic purposes. The following is a brief synopsis of other types of regional open spaces in Maricopa County.

Golf Courses

The Phoenix metropolitan area is world renowned for its golf courses. With more than 180 of the state's 300 golf courses, the Phoenix metropolitan area offers an abundance of challenging opportunities for all golfers. In 1999, more than two million tourists and 500,000 residents spent almost one billion dollars on golf and golf-related products. Moreover, over the past six years the Phoenix metropolitan area added more golf courses than any place in the United States. Since 1992, 585 holes have been added to the local golf inventory, with 522 more in the planning stage or under construction. The numerous public and private courses are primarily located within municipalities. However, there are three county-managed golf courses including:

- The 500 Club Golf Course - one 18-hole course
- Estrella Golf Course - one 18-hole course
- Paradise Valley Golf Course – two 9-hole executive courses

Agriculture

Agriculture remains an important part of Arizona's economy. Locally, Maricopa County is one of Arizona's two main agriculture-producing counties and is also Arizona's top cash producing county at \$772 million per year. Agriculture is also important to Maricopa County's heritage and provides aesthetic relief to the urban setting. While total farm acreage decreased over the last few decades, many residents believe that agriculture is important. However, there is no clear consensus on whether or how to protect agriculture and agriculture-related resources. Moreover, owners of agriculture properties have the right to develop their land within the limitations of zoning or applicable laws and regulations. There has been some effort in western Maricopa County to preserve agriculture through land use designation and preservation districts. Further, the Maricopa Association of Government's *Valley Vision 2025* plan emphasizes agricultural preservation. As such, Maricopa County could consider providing technical guidance to ensure future viability of agriculture by implementing the following techniques:

- Transferring of development rights to other areas where development may be more appropriate.
- Encouraging infill development and directing high intensity development into an urban service area.



- Establishing land use buffers to mitigate the impact of agriculture and agricultural resources on non-agricultural development.
- Providing incentives to promote the preservation of agriculture lands, such as clustered development or community supported farms.
- Acquiring acreage in the agricultural preservation district near Luke Air Force Base.

Development Master Plans

Development Master Plans (DMPs) have historically been a preferred type of development in Maricopa County. These communities promote standards of prudent and sustainable land development and allow flexibility in the development of large tracts of unincorporated land. DMPs allow for creative design techniques and require a high level of commitment to ensure adequate facilities and infrastructure are provided. Although not a requirement, the DMP guidelines provide for a recommended level of open space.

Power Plants

In December, 1996, the Arizona Corporation Commission (ACC) passed the Retail Electric Competition Rule which essentially created energy deregulation in Arizona. Since that time, four merchant power plants have been entitled in southwestern Maricopa County. Merchant plants sell power on the wholesale market. The types of merchant power plants permitted are combined cycle gas-fired facilities, which require large amounts of water for steam generation and cooling. Most of the plants opted to retire farmland and the appurtenant Irrigation Grandfather Rights to obtain their converted Type 1 groundwater rights. As an environmental offset to the possible water supply and air quality impacts, the power plants designated their water properties as open space. The combined amount of open space is 6,843 acres. Per Arizona State law, this land could legally develop at one dwelling unit per acre; however, without associated water rights, development is unlikely. Further, most of the open space will be revegetated and/or used as wildlife habitat.

Needs Assessment

This section discusses existing dedicated regional open space, and identifies opportunities for protection of new open space areas.

Research has shown that open space protection is one of the most important public policy issues for Maricopa County residents. For example, in a 1999 general population survey conducted by Arizona State University open space was viewed as an important priority by 93% of the population. In addition, a survey from the Maricopa Association of Government's *Valley Vision 2025* plan identifies that open space preservation ranked third in importance for regional issues.

While there is general agreement that open space is an important policy issue, it is difficult to reach consensus on the definition of 'open space.' For this report, regional



open space is assessed in relation to the function it serves. This includes regional parks and recreation areas, special use parks, conservation areas, and linear parks.

Regional Open Space Analysis

Regional Parks and Recreation Areas

In 1970, Maricopa County conducted a study of open space to determine future needs. In this study, participants used a regional park standard of 25 acres per 1000 persons. This, however, differs from standards identified by the NRPA which recommends a level of service standard of 15.2 acres of regional open space per 1000 persons. However, the NRPA also recommends that communities adapt these standards to reflect the needs of the people in a specific area. Complicating this scenario is that cities and counties use differing standards based on individual needs. Because of variation and the potentially subjective nature of these standards, this assessment uses opportunities in *Eye to the Future 2020* and the *Desert Spaces* plan to identify areas where future open space may be warranted.

Maricopa County currently oversees approximately 153,374 acres of regional park and recreation land. In the classification hierarchy, the purpose of a regional park is to offer a sense of remoteness or isolation within an urbanizing area so that one can commune with nature. Regional parks tend to be “large, unspoiled preserves removed from the urban areas and protected from urban encroachment by a buffer zone” (MC-*Regional Park System Plan*, 1966). Generally, 80% of the regional parks are reserved for conservation and natural resource management, with less than 20% used for recreation.

When established in the 1950s and 1960s, the existing regional parks were located in remote areas far away from urban areas. However, as identified in **Figures 3 and 4**, rapid growth over the last several decades has pushed urban development out near these once remote parks. Ultimately, growth and development will result in an increased use of these parks, and possibly a change in their purpose. Moreover, as the existing parks become surrounded by urban development it may be necessary to identify areas where these parks can be expanded to maintain their character as “large, unspoiled preserves removed from the urban areas and protected from urban encroachment by a buffer zone.” Further, as Maricopa County’s population increases it may also be necessary to add new regional parks—outside of the urban area—to the park system. The most likely opportunities for future regional parks include:

- **Wilderness Areas:** As identified in **Figure 2**, federally administered wilderness areas in Maricopa County are generally located well outside the existing urban area. Wilderness areas serve some purposes similar to that of regional parks in that they offer protection of sensitive areas, yet provide limited recreational opportunities. However, designated wilderness areas provide a higher level of protection of natural

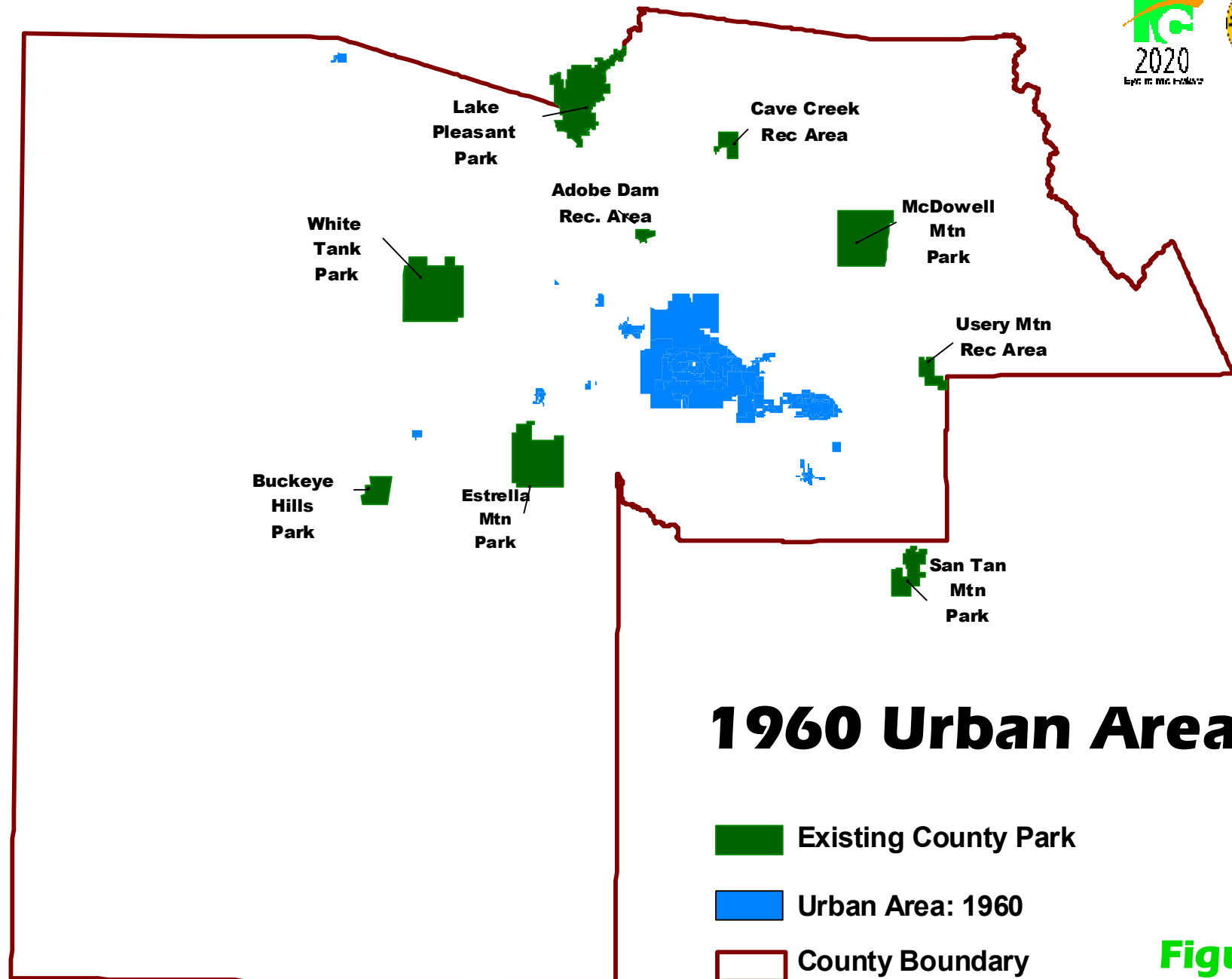


Figure 3

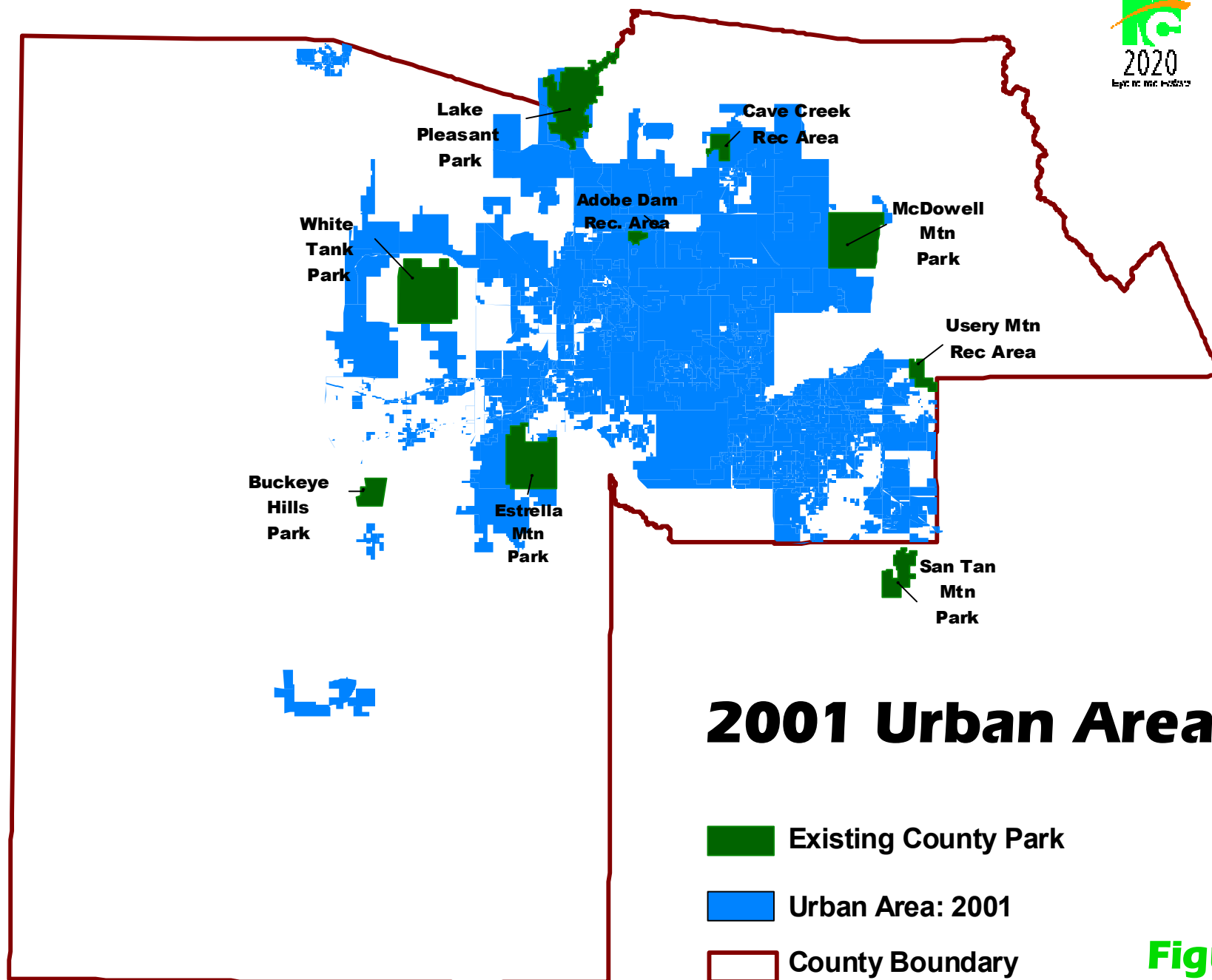


Figure 4



values and recreation is not emphasized. For example, no motorized vehicles or bicycles are permitted in wilderness areas.

- **Conservation Areas:** Identified in the *Desert Spaces* plan as “public and private lands with outstanding open space value,” conservation areas are generally located outside the urban area in locations of steep slope or within significant floodplains. Conservation areas can provide environmental protection of sensitive areas, while also providing passive recreation opportunities. However, because many conservation areas are not dedicated public open space, acquisition of identified areas for future preservation would be necessary.

The Maricopa County Planning and Development Department will continue its long standing policy of coordinating and assisting the Maricopa County Parks and Recreation Department to determine when and where park expansion and/or acquisition would best serve county residents.

Besides new regional park and recreation acreage, existing parks need additional resources for staffing and long-term maintenance. A recent study by the Maricopa County Parks and Recreation Department compared its system to that of similar counties. This study showed that Maricopa County had the highest number of park acres per employee, specifically 1,475 acres of park per employee as compared to 60 acres per employee in Pima County and 76 acres per employee in San Diego County. The same study also showed that Maricopa County allocates approximately \$97 per acre for parks, compared to \$1,100 dollars per acre in King County, Washington and \$520 per acre in Hennepin County, Minnesota. The Maricopa County Parks and Recreation Department also indicates the following future development and maintenance needs: land surveys, property fencing, trail construction, trail signage, visitors centers, campgrounds, picnic areas/ramadas, playground equipment, and restrooms.

Special Use Parks

Regionally significant special use facilities are typically located and developed to serve one or more community needs for recreational, historical, educational, cultural, and environmental activities. These facilities range from passive activities such as scenic corridors and gardens to active recreation such as camping facilities and golf courses. Special use facilities may be located in regional conservancy areas or parks. There is no minimum standard and the size of the facility is dependent on the use.

Maricopa County has a variety of special use facilities such as group/family picnic sites and camping grounds, golf courses, lakes, educational centers, and sports facilities. As regional parks are expanded or dedicated, additional special use facilities may be necessary due to needs or service demand. Such determination should be done on an individual basis in conjunction with citizen preferences.



Conservancy Areas

The purpose of a conservancy area is for the protection and management of the natural or cultural environment with recreational use as a secondary objective. Maricopa County contains several hundred thousand acres of conservancy land. There are no standards for the amount of conservancy land needed since it is based upon the natural resources available within a specific community. However, as previously noted conservancy areas may provide future opportunities for new regional parks to meet residents' needs.

Linear Parks

In 1964 Maricopa County completed an inventory and needs assessment of open space trails. Known as the *Maricopa County Hiking and Riding Trails* plan, this report provided a 20 year needs analysis based on a standard of 20 trail users per mile, although this standard is described in the study as being 'hypothetical.' The plan concluded that by 1980, approximately 2,235 miles of trails would be required. This plan resulted in the Sun Circle Trail which to date has not been fully implemented. However, as previously discussed, the Maricopa County Trails Commission is overseeing the planning of a regional trail master plan, which will expand on the Sun Circle Trail, help link open space areas in Maricopa County, and contribute to the overall regional connectivity of Maricopa County.

Proposed Open Space

Eye to the Future 2020, the Maricopa County Comprehensive Plan, separates proposed open space into publicly owned proposed open space and privately owned proposed open space. Proposed open spaces are areas that, if acquired for the public domain, should be planned and managed to protect, maintain, and enhance their intrinsic value for recreational, aesthetic, and biological purposes. It is also recommended that proposed open space be protected from development and its effects through policy amendments, easements, restrictions, and/or acquisition. Within proposed open spaces, public access should be protected and preservation encouraged.

While areas identified as proposed open space offer opportunities for protection, it is important to note that all privately-owned and State Trust Land considered for open space conservation may be developed unless it is added to the public domain or protected using other techniques that respect private property rights. Further, current Arizona law allows proposed open space to be developed at a minimum of one dwelling unit per acre.

The *Desert Spaces* plan also considers areas for proposed open spaces in Maricopa County. The plan identifies approximately 1,500 square miles of land as conservation areas. Most conservation areas are identified as such to preserve, protect, and enhance mountains, foothills, rivers, washes, canals, cultural sites, Upland Sonoran Desert, and



wildlife habitat. The result is an interconnected system of regionally significant scenic, biological, archaeological, and recreational lands. Environmentally sensitive areas of Upland Sonoran Desert, floodplains of major rivers and washes that provide valuable wildlife habitat, and the most scenic landscapes are included in the plan. The plan also consists of a regional trails network which primarily follows rivers, washes, and canals, and would allow the public to traverse the region and enjoy diverse open spaces.

The *Desert Spaces* plan also protects important natural areas that support valuable wildlife habitat and allow wildlife to move freely between the larger preserves. The system is designed so that biodiversity and sustainable flora and fauna populations can coexist with development. Some opportunities for current and future open space, as identified in the *Desert Spaces* plan as well as through recent open space protection projects and BLM recommendation, include the following:

- Creation of a regional trail system that integrates existing and planned trail systems, and helps connect regional open space areas. Such a comprehensive system will cross through many jurisdictions, communities, and properties, which provides an excellent opportunity for developing regional partnerships and cooperative efforts. Further, such a system is capable of providing various recreational opportunities, such as walking, jogging, biking, and horseback riding, through the use of varying trail surfaces.
- Many existing parks and preserves need rehabilitation and/or expansion since their boundaries do not encompass the full extent of the open space resource. Examples include McDowell Mountain Regional Park, White Tank Mountain Regional Park, Cave Creek Recreation Area, Lake Pleasant Regional Park, Estrella Mountain Regional Park, Phoenix Mountain Preserve, and Buckeye Hills Recreation Area. Two parks—McDowell and Cave Creek—are currently under expansion by Maricopa County through the Arizona Preserve Initiative (discussed on page 24). Further, Maricopa County Parks and Recreation Department is in the process of acquiring land from the BLM for expansion of White Tank Mountain Park. Lake Pleasant Regional Park and San Tan Mountain Park also have areas of potential expansion.
- Maricopa County has identified Saddle Mountain as a possible acquisition site, and cities such as Peoria, Scottsdale, and Phoenix have Sonoran Desert conservation plans.
- Areas of less than 15% slope around the base of mountainous areas could help be a transition to more urban type development. Maricopa County currently restricts development on slopes greater than 15% through a hillside ordinance.
- Municipalities, through open space plans such as City of Peoria's Desert Lands Conservation Master Plan and City of Mesa's Desert Uplands Development



Standards, could minimize disturbance of environmentally sensitive areas and provide interconnected open space.

- Many rivers and washes provide open space opportunities, although some need rehabilitation or repair. Some of these opportunities include the Verde, Agua Fria, New, Hassayampa, and Salt Rivers. Other opportunities include the Cave Creek, Skunk Creek, Centennial, Indian Bend, Queen Creek, Camp Creek, Deadman, and Trilby Washes. Through current and future studies and projects, the Flood Control District of Maricopa County is currently considering the recreation potential in many of these rivers and washes.
- Upper Sonoran Desert areas can serve as major links or corridors between regionally significant open space resources. Identified links include:
 - Saucedo Mountains—Maricopa Mountains
 - Woolsey Peak Wilderness Area—Eagle Tail Mountain Wilderness Areas
 - Harquahala Mountain Wilderness Area—Hummingbird Springs Wilderness Area
 - Harquahala Mountain Wilderness Area—Hieroglyphic Mountains
 - Hieroglyphic Mountains—New River Mountains
 - McDowell Mountains—Mazatzal Mountains
 - Mazatzal Mountains—Superstition Mountains
 - White Tank Mountains—Hassayampa River

Besides the above mentioned open space opportunities, the *Desert Spaces* plan prioritizes areas for protection. Criteria used for prioritization included proximity to population growth, location of the greatest number of natural and cultural resources, existing land use, visibility, and overall importance for establishing an interconnected system. Sensitive open space in high growth areas is considered higher priority than slower growing areas. **Table 3**, taken from the *Desert Spaces* plan, identifies unprotected areas in Maricopa County.

Land Ownership Considerations

Federal Land

The USDA Forest Service (USFS) manages lands for multiple use and sustained yield of goods and services from National Forest System lands to maximizes long-term public benefits in an environmentally sound manner. The USFS has authority under a number of statutes, when it is in the public interest, to exchange lands with non-federal parties within the boundaries of National Forests within a state. Public interest considerations include: state and local needs; protection of habitats, cultural resources, watersheds,



Table 3
Unprotected Areas

Resource Area		Mountain	River or Wash	Vegetation	Biologically Important	Visually Important	Cultural Sites	Close to Canals
Federal Outstanding Resources, Development Pressures	Upper Verde River		X	X	X		X	
	Upper Salt River		X	X	X		X	
	Usery Mountains	X		X	X	X		
	Upper Cave Creek		X	X	X			
	White Tank Mountains	X		X	X	X		
Federal Outstanding Resources, No Development Pressures	New River Mountains	X		X	X	X		
	Humboldt Mountains	X		X	X		X	
	Sycamore Creek		X	X	X			
	Sand Tank Wash		X	X	X			
	Painted Rock				X		X	
Private Outstanding Resources, Development Pressure	McDowell Mountains	X		X	X	X		
	Lower Verde River		X	X	X		X	
	Apache Peak	X		X	X	X	X	
	Lower New River		X	X	X			
	Cave Creek		X	X	X		X	
	Skunk Creek		X	X	X	X		X
	Lower Cave Creek And Union Hills	X	X	X	X	X	X	X
	White Tank Mountains	X		X	X	X		
	Estrella Mountains	X		X	X	X		
	S. Hieroglyphic Mountains	X		X	X	X		
Outstanding Resources, Needing Rehabilitation	Salt River		X		X		X	X
	Agua Fria River		X		X		X	
	Lower Cave Creek		X		X			
Private Outstanding Resources, No Development Pressure	Hassayampa River		X	X	X			
	Gila River		X		X		X	X
	N. Hieroglyphic Mountains	X		X	X			

[Note: Identified resources may not be up to date since survey was based on 1995 information]



and wilderness and aesthetic values; enhancement of recreation opportunities and public access; consolidation of lands for efficient management; implementation or accommodation of existing or planned land uses or plans; and fulfillment of public needs.

The Bureau Of Land Management (BLM) preserves open space by managing public lands for multiple uses, including recreation, livestock grazing, and mining, and by conserving natural, historical, cultural, scenic and other resources found on public lands (BLM web page, 2000). The disposal of public lands is authorized through sales and exchanges as directed by the 1976 Federal Land Policy and Management Act. Parcels considered for disposal are generally scattered lands outside the resource management areas, lands with low resource values near communities, or lands that serve important public objectives such as community or economic development. Typically, the BLM does not offer much land for sale because of the 1976 congressional mandate to retain most of these lands in public ownership.

State Land

Under state charter, the Arizona State Land Department has the responsibility on behalf of beneficiaries to assure the highest and best use of the trust lands. The federal enabling act and state constitution mandate that fair market value must be obtained from all trust land transactions which includes sales and commercial leasing. All revenues derived from the sale of trust lands are placed in a fund, which benefits public education. Given this well-defined mission, development can and does occur on state-owned land. In 1996, the Arizona Preserve Initiative was enacted by the state legislature to give the Land Department authority to reclassify, lease, and sell urban state trust lands to local governments and nonprofit organizations as open space for conservation purposes.

Military

Located 70 miles southwest of Phoenix, the Barry M. Goldwater Range provides 2.7 million acres for Air Force and Marine training, approximately 720,000 acres of which is located in Maricopa County. A small portion of the Range is utilized for military activity while the balance remains as open space. As discussed previously, a portion of this military range was recently included in a new federal monument.

Tribal Lands

Various Indian tribes manage approximately 200,000 acres of land in Maricopa County. These tribes include the Fort McDowell-Apache, the Salt River Pima-Maricopa, the Gila River, and the Tohono O'odham. While development can occur on tribal lands, it is subject to the rules and regulations of the respective community.



Open Space Protection Techniques

There are numerous techniques used by jurisdictions for protecting and/or acquiring open space. The following is a list of some of these techniques.

Arizona Preserve Initiative

The Arizona Preserve Initiative (API) was incorporated into Arizona State law in 1996 and amended in 1997, 1998, and 1999. The API encourages preservation of State Trust Land parcels in and around urban areas for the benefit of the public. A process has been coordinated so that a government entity, business, state land lessee, or group of citizens can petition the state to have select parcels of land reclassified for conservation. The statute authorizes the state to withdraw land from sale for three to five years (with the possible extension for up to three more years) to allow prospective purchasers time to prepare a conservation plan and to raise funds. The land must still be auctioned at fair market value and requires public notice. In addition, in November 1998 as part of the Growing Smarter program, voters approved a matching grant program (\$20 million per year over an 11-year period) for purchase or lease of state trust lands for conservation. As of March 2001, 23 petitions for reclassification under the API totaling approximately 88,496 acres have been submitted to the state. Maricopa County has used this process to reclassify land adjacent to the Cave Creek and McDowell Mountain parks, and land along the Agua Fria River (API Project Status Report, March 15, 2001).

Cluster Development

Cluster development permits high-density development in parts of a subdivision to protect lands in other parts of the same subdivision. The land, which is not developed due to higher densities in a portion of the development, can be used as valuable open space. By concentrating development into a more compact form, infrastructure costs can be reduced thereby providing a financial incentive for developers. Conventional zoning ordinances do not allow clustered development; however, Maricopa County's Residential Unit Plan of Development process could be used for this purpose.

Conservation Easements

A conservation easement is a technique that can effectively assist a community in securing and preserving open space. A conservation easement is a legally binding contract that occurs when some rights of a property are transferred and recorded. A landowner retains their property rights, but transfers their development rights to a steward who is then responsible for maintaining the easement. Additionally, a conservation easement can be considered tax-deductible by the Federal government if



it is donated by a landowner. Conservation easements may require substantial administration and an outlay of funds if an easement is purchased.

Conveyance of Property to Homeowner Associations

Conveyance of property to homeowner associations is used in the development permit process in Maricopa County. Lands protected as open space through the entitlement process are secured, but not necessarily accessible to the general public. Maricopa County could make this technique more effective by identifying lands for protection and requiring specific percentages be set aside for open space within developments.

Density Bonuses

Density bonuses are a common incentive technique for land protection. The right to develop more intensely for residential or commercial development can be given in exchange for conservation of the desert, riparian areas, or wildlife habitat.

Design Guidelines

Design guidelines can be incorporated into a zoning ordinance with relation to building heights, lighting, construction material, landscaping, and water usage. The purpose of design guidelines is to allow control over development in designated areas and to ensure that a development does not dominate a landscape. One such example of design guidelines is from the Maricopa Association of Governments, which published an Environmentally Sensitive Development Areas (ESDA) document in 2000. The purpose of the ESDA is to provide guidance to the public and private sector in making sensitive development and design decisions for projects built on land the *Desert Spaces* plan identified as "Retention Areas."

Federal Land Management

Federal land management agencies protect open space on BLM and USFS lands through Congressional designations of lands; designations by the Secretaries of Interior (BLM) and Agriculture (USFS) and the heads of the agencies; and through approved land management plans completed using extensive public involvement processes.

Fee Simple Purchase

Fee simple purchase involves the direct purchase of full title to a parcel of land with all rights associated with its use. Governments and non-profit organizations can use this technique for control of identified land. With fee simple purchase, permanent or dedicated protection of land is achieved and public access can be allowed. This technique may be most feasible in rural areas where land prices are lower.



Impact Fees

Impact fees are a technique which requires a developer in a specified area(s) to pay a fee typically on a per unit basis. Laws governing impact fees in Arizona counties are identified in Title 11 of the Arizona Revised Statutes.

Land Dedication

Land dedication is also an exercise of police power. Under this technique, a landowner is required to dedicate environmentally sensitive lands as a condition of receiving entitlements. This technique is currently used in Maricopa County for right-of-way exaction. To avoid a "takings" conflict, it is important to show a reasonable nexus between a project and the impact of sensitive land.

Land Exchange

The land exchange technique involves trading developable land for property with high open space value. The advantages of this technique include no "hard" cost and avoidance of capital gains tax for the landowner. On the other hand, the disadvantages include the unwillingness of landowners to exchange land and the complexities related to the exchange process.

Lease Agreements

Lease or use agreements involve short- or long-term public sector rental of land with a use agreement for open space. The advantages include low cost and the landowner's incentive to receive a regular income stream. The disadvantages involve lack of equity and long-term protection.

Performance Zoning

While conventional zoning separates land use based on categories such as residential, commercial, and industrial, performance zoning regulates development based on variables such as open space ratios, impervious surface ratios, density, and floor area ratios. Regulations consist of guidelines for the ratio between open space and built space, for instance, rather than strict requirements for the structures or their use. This type of zoning allows for the best use of location, land use, and building types by encouraging flexibility within a set process. To be truly effective, this type of process would require an overall restructuring of counties' zoning policies and processes.

Planned Unit Development

Maricopa County currently has the Planned Development Overlay Zoning District (PD), also known as the Planned Unit Development (PUD) process in its zoning ordinance for



residential, commercial, and industrial uses. The purpose of the PD Overlay Zoning District is to allow large-scale development where variation in development standards is warranted due to topography, innovative project design, or other considerations. Discretion is involved in Maricopa County's PUD process, and it could be more effective with precise definitions and designation of appropriate trade-offs like open space ratios or percentages.

Purchase of Development Rights

Purchase of Development Rights (PDR) is premised on the concept of a "bundle of sticks" that comprises private property (i.e., mineral rights, water rights, surface rights, air rights, and development rights). Under a PDR arrangement, a landowner sells their development rights to a jurisdiction while retaining all other rights of ownership. The price is generally determined as the difference between the appraised market value of the property and the current use value.

Slope/Hillside Ordinance

Maricopa County currently has a hillside ordinance for parcels having a natural hillside slope of 15% or greater. The main purpose of the hillside development standard is to allow the reasonable use and development of hillside areas while promoting the public health, safety, convenience, and general welfare of the citizens of Maricopa County, and maintaining the character, identity, and image of hillside areas. The primary objectives of the hillside development standard is to minimize possible loss of life and property through careful regulation of development; to protect watersheds, natural waterways, and minimize soil erosion; to ensure that all new development is free from adverse drainage conditions; to encourage preservation of existing landscape by retaining natural topographic features; and to minimize scarring from hillside construction. To be more effective, Maricopa County could revise and update their process of identifying hillside lands.

Transfer of Development Rights

Transfer of Development Rights (TDR) is intended to shift development from areas where preservation or protection is desired to areas where greater densities are appropriate. TDR uses the same "bundle of sticks" concept utilized with PDR in which the development right pertaining to a piece of property is transferred while the other property rights are retained. Under a TDR program, a landowner in a "sending area" can sell his development rights to an owner in a "receiving area." Sending area landowners are compensated for their development rights, while receiving area landowners can increase the density and value of the property.



Goals, Objectives, and Policies

This section identifies comprehensive goals, objectives, and policies to address open space for Maricopa County, and help support and implement *Eye to the Future 2020*. To help understand the intent of these items, the following definitions are provided:

Goal: A concise statement describing a condition to be achieved. It does not suggest specific actions, but describes a desired outcome.

Objective: An achievable step towards a goal. Progress towards an objective can be measured and is generally time dependent.

Policy: A specific statement to guide public and private decision making. It is derived from the goals and objectives of the plan.

The goals, objectives, and policies are the action component for addressing open space in *Eye to the Future 2020*. Therefore, land use decisions should be made in coordination with the goals, objectives, and policies contained in this section.

Goals, objectives, and policies come from existing county goals, municipal plans and regional plans within Maricopa County as well as from discussions with various stakeholders at public meetings. It is important to acknowledge the existing open space goals, objectives, and policies contained within the land use, transportation, environmental, and economic development elements of the comprehensive plan. The existing goals, objectives, and policies will not be reiterated in the open space element, but are considered important to its effectiveness.

Existing Goals, Objectives, Policies

The following are existing goals, objectives, and policies within *Eye to the Future 2020* relating to open space.

Land Use Goal: Promote efficient land development that is compatible with adjacent land uses, is well integrated with the transportation system, and is sensitive to the natural environment.

Objective L4 Provide for the coexistence of urban and rural land uses.

Policy L4.1 Encourage appropriate buffers to mitigate conflicting land uses.

Policy L4.2 Encourage adequate separation between intensive urban and rural land uses.



Policy L4.3 Encourage development patterns and standards compatible with the continuing operation of military and civilian airports, and other major noise generating employment centers within unincorporated county.

Objective L6 Cluster development in appropriate patterns.

Policy L6.1 Encourage and accommodate mixed-use development.

Policy L6.2 Encourage a mixture of housing types and intensities within planned developments.

Policy L6.3 Encourage planned communities that incorporate quality and clustered development.

Policy L6.4 Encourage new development to preserve significant desert habitats, natural resources, and landscapes.

Objective L10 Promote the balance of conservation and development.

Policy L10.1 Encourage the preservation of environmentally sensitive areas through the transfer of development rights, density transfers, or other suitable techniques.

Policy L10.2 Encourage building envelopes and localized grading, to reduce blading and cut and fill, in environmentally sensitive areas.

Policy L10.3 Encourage and provide incentives for clustered development patterns within Development Master Plans.

Policy L10.4 Encourage the development of critical area programs to preserve environmentally sensitive areas in a manner that protects private property rights.

Policy L10.5 Encourage development standards for hillsides and other environmentally sensitive lands that allow street standards and other infrastructure to respond in an innovative manner to topography and drainage.

Policy L10.6 Encourage the preservation of ridgelines, foothills, and mountainous land with slopes of 15% or greater.

Objective L11 Promote an interconnected open space system.

Policy L11.1 Support techniques for acquisition and maintenance of open space.



Policy L11.2 Preserve and respect private property rights in any future designation of open space areas.

Policy L11.3 Encourage the protection of ridgelines, foothills, significant mountainous areas, wildlife habitat, native vegetation, and riparian areas.

Policy L11.4 Discourage development within major 100-year floodplains.

Transportation Goal: Provide an efficient, cost-effective, integrated, accessible, environmentally sensitive, and safe county-wide multi-modal system that addresses existing and future roadway networks, as well as promotes transit, bikeways, and pedestrian travel.

Objective T4 Identify and accommodate transportation corridors.

Policy T4.6 Identify current and future recreation centers and corridors.

Environmental Goal 1: Promote development that considers adverse environmental impacts on the natural and cultural environment, preserves highly valued open space, and remediates areas contaminated with hazardous materials.

Environmental Goal 2: Improve air quality and reduce noise impacts.

Objective E1 Encourage preservation of significant mountainous areas with slopes over 15% for parks, open space, and/or compatible recreation use.

Policy E1.1 Conduct site evaluations in the planning stage.

Policy E1.2 Explore incentives and options for preservation.

Policy E1.3 Refine existing topographic classification system.

Objective E2 Promote development that is compatible with the visual character and quality of site.

Policy E2.1 Encourage guidelines for building construction, modification, and landscaping that reflect community or regional character.

Policy E2.2 Encourage preservation of scenic corridors and vistas.



Objective E3 Promote the appreciation and preservation of significant archeological and historic resources within the framework of state and federal laws, regulations, and guidelines.

- Policy E3.1 Conduct surveys and evaluations for cultural resources as required by the Arizona Antiquities Act, the State Historic Preservation Act, the National Historic Preservation Act, and other applicable laws, regulations, and guidelines.
- Policy E3.2 Implement mitigation measures for cultural resources as required by the Arizona Antiquities Act, the State Historic Preservation Act, the National Historic Preservation Act, and other applicable laws, regulations, and guidelines.
- Policy E3.3 Consider alternative funding sources for impact avoidance or mitigation or impacts to significant cultural resources.

Objective E4 Encourage the protection of habitat within the framework of state and federal laws, regulations, and guidelines.

- Policy E4.1 Identify priority habitat areas subject to development in compliance with Endangered Species Act and other applicable laws, regulations, and guidelines.
- Policy E4.2 Participate in the inventory and classification of habitat for noted important species in priority areas if required by state or federal laws, regulations, and/or guidelines.
- Policy E4.3 Develop habitat conservation plans for protected species if required by state or federal laws, regulations, and/or guidelines.
- Policy E4.4 Explore incentives to preserve habitat.
- Policy E4.5 Explore methods to acquire lands classified as priority habitat areas as part of an open space plan.

Objective E5 Promote the protection and preservation of riparian areas within the framework of state and federal laws, regulations, and guidelines.

- Policy E5.1 Encourage site evaluation and classification of riparian-areas as required by the United States Army Corps of Engineers 404 permit program or by other state or federal laws, regulations, and/or guidelines.



Policy E5.2 Consider incentives and options for preservation.

Objective E7 Discourage new development in major 100-year floodplains.

Policy E7.1 Ensure that local floodplain management regulations remain in conformance with state flood control statutes and the National Flood Insurance Program (NFIP) rules and guidelines.

Policy E7.2 Review proposed floodplain uses and issue only appropriate permits and clearances.

Policy E7.3 Review existing 100-year floodplains as necessary against changed conditions and obtain revisions through Federal Emergency Management Agency (FEMA) where necessary.

Policy E7.4 Encourage flood identification studies in areas where development is imminent or ongoing to identify 100-year flood hazard areas.

Policy E7.5 Continue public education efforts pertaining to the judicious uses of flood-prone properties.

Economic Development Goal: Promote a growing, balanced, efficient, and diversified economy, consistent with available resources, that enhances quality employment opportunities, improves quality of life, and is sensitive to the natural and cultural environment.

Objective ED1 Expand quality employment opportunities and capital investment.

Policy ED1.3 Encourage, coordinate, and support the promotion of employment in growth clusters, mainly value-added farming, retirement, tourism, manufacturing/distribution, and service sectors.

New Goals, Objectives, and Policies

The following are the goals, objectives, and policies for the open space element:

Goal: Maintain and, where necessary, encourage expanding the open space system for Maricopa County to address public access, connectivity, education, preservation, buffering, quantity, quality, and diversity for regionally significant open spaces.

Objective O1 Promote physical and visual public access to open space resources.



- Policy O1.1 Encourage efforts to protect and improve public access to open space resources.
- Policy O1.2 Encourage protection of view corridors within new and established scenic corridors.
- Policy O1.3 Encourage protection of public access around existing regional parks from urban encroachment.

Objective 02 Establish regional open space connectivity and linkages for both recreation and wildlife purposes.

- Policy O2.1 Coordinate trail linkages in new developments with Maricopa County Flood Control projects and other open space projects and/or resources.
- Policy O2.2 Encourage development of trails along rivers, significant washes, and canals to link existing open space resources throughout the region.
- Policy O2.3 Design all road crossings to minimize disturbance to the natural environment, and to accommodate identified trail crossings and other open space.
- Policy O2.4 Encourage preservation of Upper Sonoran Desert areas to serve as major links between regionally significant open space resources. In addition, encourage inclusion of smaller areas of foothills (bajadas), flatlands, and small valleys to provide connectivity and transition functions.
- Policy O2.5 Encourage completion of the Sun Circle Trail (Figure 2) through integration into the Maricopa County Regional Trail plan.
- Policy O2.6 Support and participate in the planning, development, and implementation of the proposed Maricopa County Regional Trail in coordination with local stakeholders, to ensure a widely accessible, unified trail system.
- Policy O2.7 Encourage integration and consideration of the proposed Maricopa County Regional Trail into future development.
- Policy O2.8 Support partnerships with public and private entities whenever possible to establish open space corridors and linkages.

Objective 03 Promote the economic and quality of life benefits of open space.



- Policy O3.1 Encourage communication efforts with open space stakeholders to share information and discussion on current issues and/or projects.
- Policy O3.2 Discuss and encourage open space preservation with applicants during the zoning and subdivision process.
- Policy O3.3 Explore implementation of development standards for open space.
- Policy O3.4 Participate in multi-jurisdictional projects that promote open space protection.
- Policy O3.5 Encourage on-going education and communication with residents about open space needs.
- Policy O3.6 Support and encourage efforts to preserve agricultural land where deemed appropriate.

Objective 04 Protect and enhance environmentally sensitive areas, including mountains and steep slopes; rivers and significant washes; historic, cultural, and archeological resources; view corridors; sensitive desert; and significant wildlife habitat and ecosystems.

- Policy O4.1 Conserve mountainous areas that contain important wildlife habitats, cultural resources, and scenic areas.
- Policy O4.2 Discourage development on ridge or crestlines and on steep slopes.
- Policy O4.3 Encourage the use of native plant material for all types of landscaping.
- Policy O4.4 Consider creation of a landscape ordinance.
- Policy O4.5 Explore implementation of flexible zoning techniques that promote open space preservation.
- Policy O4.6 Consider alternate funding sources and protection techniques for acquisition of priority open space areas.
- Policy O4.7 Discourage development in areas that are environmentally sensitive.

Objective 05 Encourage appropriate open space between communities and land uses.



- Policy O5.1 Promote transitional land uses around mountainous areas, open space linkages, and public access points.
- Policy O5.2 Encourage density transitions to separate rural from urbanized areas and to buffer preserve areas from urbanized areas.
- Policy O5.3 Protect view corridors through buffering, screening, and other development standards.

Objective O6 Improve quantity, quality, and diversity of open space and recreational opportunities.

- Policy O6.1 Support efforts to expand regional park boundaries to conserve and protect adjacent open space resources.
- Policy O6.2 Protect significant cultural resources on developable lands from degradation by encouraging sensitive development or public acquisition.
- Policy O6.3 Monitor and coordinate with the State Land Department, the Bureau of Land Management, and the U.S. Forest Service regarding reclassification, exchange, disposal, and acquisition of lands identified as proposed open space under their management, to promote the cause of open space conservation.



Action Plan

Eye to the Future 2020 seeks to promote vibrant communities by encouraging growth in areas suitable for development, an efficient transportation system, a healthy environment, and a diversified economy. The open space element supports this concept through these goals, objectives, and policies.

The *Action Plan* (**Table 4**) identifies short and long term measures that can be used to implement the goal, objectives, and policies in the open space element. While some of the activities require actions for a specific period of time, most will require on-going cooperation, coordination, and communication between public and private agencies, as well as citizens and other concerned interests. Each of these groups will play an important role in plan success, and Maricopa County encourages their continuing participation. The Open Space Element Action Plan and is organized as follows:

<i>Action</i>	Lists actions necessary for the implementation of the element.
<i>Description</i>	Describes the process for the resolution of the item.
<i>Elements(s) Involved</i>	Lists related elements from the comprehensive plan.
<i>Department/Agency</i>	Identifies the county department and/or partnering agencies involved in plan implementation.
<i>Timeline</i>	Details when particular actions will take place.

Table 4
Open Space Action Plan

Action	Description	Element (s) Involved	Department/ Agency	Timeline (5 years)				
Cost Analysis	Conduct a cost analysis on priority open space	Land Use, Environment, Open Space	MCP&D MCPARKS BLM STATE LAND OTHERS					
Funding Options	Explore feasibility of funding techniques for acquisition of priority open space and improvements for existing parks	Land Use, Environment, Open Space	MCP&D MCPARKS					
Zoning Ordinance	Where feasible, update and revise zoning ordinance to include development, performance, and landscaping standards for open space	Land Use, Environment, Open Space	ALL					
Subdivision Regulations	Where feasible, update and revise subdivision regulations to include design standards for open space	Land Use, Environment, Open Space	ALL					
Regional Open Space Meetings	Coordinate regional open space meetings between various governmental entities and stakeholders for information sharing	ALL	ALL					
Maricopa County Regional Trails Commission	Participate in staff Trails Commission meetings	Open Space	MCP&D MCPARKS					
Maricopa County Regional Trails Plan	Participate in the planning, development and implementation of the Maricopa County Regional Trails Plan	Open Space	ALL					
Scenic Corridor Studies	Update existing scenic corridor studies and identify new corridors as necessary	Land Use, Transportation Environment, Open Space	STATE LAND MCP&D MCPARKS MCDOT					



Appendix A: Acronym List

ACC	Arizona Corporation Commission
ACEC	Area of Critical Environmental Concern
ADMP	Area Drainage Master Plan
ADMS	Area Drainage Master Study
AGFD	Arizona Game & Fish Department
API	Arizona Preserve Initiative
A.R.S.	Arizona Revised Statutes
BLM	Bureau of Land Management
B&M	Baseline and Meridian
DMP	Development Master Plan
ESDA	Environmentally Sensitive Development Area
FEMA	Federal Emergency Management Agency
MCDOT	Maricopa County Department Of Transportation
MCP&D	Maricopa County Planning & Development
MCPARKS	Maricopa County Parks & Recreation
NFIP	National Flood Insurance Program
NRPA	National Recreation and Park Association
PD	Planned Development
PLO	Public Land Order
PDR	Purchase of Development Rights
TDR	Transfer of Development Rights
U.S.C.	United States Code
USDA	United States Department of Agriculture
USFS	United States Forest Service
USFWS	United States Fish & Wildlife Service
WCMP	Water Course Master Plan



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